

Appln No. 10/624,723
Amdt date February 13, 2006
Reply to Office action of November 28, 2005

REMARKS/ARGUMENTS

The above identified patent application has been amended and reconsideration and reexamination are hereby requested.

Claims 1 - 23 are now in the application.

Claim 11 has been amended to correct a typographical error.

The Examiner has rejected Claim 6 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.

The Applicants have amended Claim 6 to call for (underlining added for emphasis) ... wherein a channel is formed by a stepped portion of the second insulation layer.

Accordingly, the Applicants submit that Claim 6 particularly points out and distinctly claims the subject matter which the Applicants regard as the invention

The Examiner has rejected Claims 21 - 23 under 35 U.S.C. §103 as being unpatentable over Choi et al.

The Applicants' Claim 21 calls for (underlining added for emphasis) ... wherein portions of the cathode electrodes are removed to form emitter-receiving sections, one of the emitters being provided in each of the emitter-receiving sections electrically contacting the cathode electrodes ... As such, the Applicants submit that the invention as claimed in Claim 21 is neither taught, described or suggested in Choi et al.

Choi et al., while providing for cathode electrodes where a portion thereof is removed, such removal is not an emitter-receiving section which the emitter is provided in. On the contrary the Choi et al. emitters 15 are formed around the hole, not in the hole. This is clearly set forth in Choi et al. at Column, 4, lines 42 - 53, which state (underlining added for emphasis):

"FIGS. 4A through 4D illustrate the four cases where one, two, three and four holes are pierced in a cathode 12 at the intersection with a gate 13, respectively, wherein an electron emission source 15 is circularly formed around each of the holes. Here, the electron emission source 15 can also be formed in different shapes. In particular, when three or more holes are formed, a hole to be positioned in the middle is formed to a dominant size, and, preferably, a field emission material is

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formed around the outer circumference of each of the holes, so that the uniformity of emission current within a pixel is increased."

Further, as Choi et al. particularly points out, the field emission material is specifically formed around the outer circumference of each of the holes so that the uniformity of emission current with a pixel is increased. Accordingly, the Applicants submit that Claim 21 is not unpatentable over Choi et al.

Claims 22 and 23 are dependent on Claim 21. As such, these claims are believed allowable based upon Claim 21.

The Examiner has rejected Claims 1 - 5, 11 - 14 and 20 - 23 under 35 U.S.C. §103 as being unpatentable over Kane et al. in view of Choi et al.

The Applicants Claim 1 calls for (underlining added for emphasis) ... at least one emitter mounted within an opening of the cathode electrode; ... Similarly, the Applicants Claim 13 calls for (underlining added for emphasis) ... an emitter mounted within openings of the cathode electrodes formed in the intersection regions; As such, the Applicants submit that the invention as claimed in Claims 1 and 13 is neither taught, described or suggested in Kane et al. even in view of Choi et al.

Kane, while providing a field emission device, has its emitter formed on its conductive/semiconductive layer. This is clearly set forth in Kane et al. at Column, 2, lines 60 - 63, which state (underlining added for emphasis):

"An anode electrode 106 is distally disposed with respect to an electron emitter electrode 107 which is disposed on conductive/semiconductive layer 108."

As discussed above, Choi et al., while providing for cathode electrodes where a portion thereof is removed, such removal is not an emitter-receiving section which the emitter is provided in. On the contrary the Choi et al. emitters 15 are formed around the hole, not in the hole. Therefore, the Applicants submit that there is no suggestion to combine the

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teachings of Kane et al. and Choi et al and result in "... at least one emitter mounted within an opening of the cathode electrode.

Claims 4, 5, 11 and 12 are dependent on Claim 1. Claim 14 is dependent on Claim 13. As such, these dependent claims are believed allowable based upon Claims 1 and 13.

Accordingly, in view of the above amendment and remarks it is submitted that the claims are patentably distinct over the prior art and that all the rejections to the claims have been overcome. Reconsideration and reexamination of the above Application is requested.

Respectfully submitted,

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